

REMARKS

This response is submitted in reply to the Office Action dated September 15, 2004. Claims 1-20 are pending in the patent application. Claim 14 has been amended. Claims 21, 22 and 23 have been added. No new matter has been added by any of the amendments made herein.

In the Office Action, the specification and the figures were objected to. Claim 14 was rejected under 35 U.S.C. § 112, second paragraph. Claims 1, 2, 4, 13-17, 18 and 20 were rejected under 35 U.S.C. § 102(e). Claims 3, 5-7, 8, 9, 10-12 and 19 were rejected under 35 U.S.C. § 103(a). Applicants respectfully submit, for at least the reasons set forth below, that the rejections have been overcome or are improper. Accordingly, Applicants respectfully request reconsideration of the patentability of Claims 1-20 and new Claims 21, 22 and 23.

The specification was objected to because of an informality. Specifically, the Office Action states that at page 6, line 2, the reference number “25” should be “20.” Accordingly, Applicants have amended the specification at page 6, line 2 to change the reference number “25” to reference number “20.”

Figures 6 and 7 were objected to as failing to comply with 37 CFR § 1.84(p)(5) because the reference sign “SP6” is not mentioned in the specification. Applicants have amended the specification and the drawings to overcome this rejection.

Claim 13 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly Claim the subject matter which Applicants regard as the invention. Specifically, the Office Action states that the limitation “the private key” at line 17 of Claim 14 has insufficient antecedent basis. Applicants have amended Claim 14 to provide sufficient antecedent basis for this limitation. Therefore, Applicants respectfully submit that the rejection of Claim 14 has been overcome.

Claims 1, 2, 4, 13-17, 18 and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,076,164 to Tanaka et al. (“*Tanaka*”). Applicants respectfully disagree with and traverse this rejection because *Tanaka* does not disclose all of the elements of the claims.

Tanaka is directed to an authentication method and system for authenticating between a user or client and a network access entity such as a server or another client using an IC card. (See the Abstract). The method includes executing an initial authentication using the IC card

when a user first communicates with the network access entity. The initial authentication includes using a public key cryptographic technique (Col. 4, lines 8-13). If this initial authentication authenticates the user (i.e., initial authentication is successful), the user and network access entity both commonly hold the authentication information for a period of time. If the user communicates again with the same network entity within that period of time, a re-authentication is executed using the commonly-held authentication information without using the IC card. The re-authentication employs a secret key cryptographic technique (see Claim 1). The secret key cryptographic technique may be a common key cryptographic technique which is traceable of high-speed processing (Col. 6, lines 61-63). Therefore, *Tanaka* discloses a system which initially authenticates a user using a public key encryption technique and enables a re-authentication of a user without using the IC card if the user communicates with the network again within a designated period of time. Otherwise, the user must go through the initial authentication process again. (See the Abstract, Col. 4, lines 51-58). *Tanaka*, however, does not disclose all of the elements of the claimed invention.

In particular, *Tanaka* does not disclose an authentication system which authenticates a user using both a common key encryption method and an private key encryption method during a single authentication process. Instead, *Tanaka* performs an initial authentication and then a separate re-authentication only when the user communicates with the network entity again within the designated period of time. Otherwise, the process in *Tanaka* performs the initial authentication process again when the user communicates with the network outside of the designated period of time from the previous authentication. Accordingly, *Tanaka* does not perform separate authentications at one time or during the same authentication process.

Also, *Tanaka* uses a public key encryption method for the initial authentication and only uses the secret key encryption method when re-authentication occurs. In one embodiment, the re-authentication includes a common key encryption technique. The claimed invention, however, uses a common key encryption method initially and then public key encryption method as a second more secure form of authentication during the process.

Tanaka, therefore, does not disclose, teach or suggest all of the elements of Claim 1. Accordingly, Applicants respectfully submit that Claim 1 and Claims 2-4, which depend from Claim 1, are patentably distinguished over *Tanaka* and are in condition for allowance.

Claims 5, 13 and 14 includes similar elements to Claim 1. Therefore, Claim 5 and Claims 6-12, which depend from Claim 5, Claims 13 and 14 and Claims 15-20, which depend from Claim 14, are each patentably distinguished over *Tanaka* and are in condition for allowance.

Claims 3, 5-7, 8, 9, 10-12 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tanaka*. As described above, Claim 5 includes similar elements to Claim 1. Additionally, Claims 3 and 4 depend from Claim 1, Claims 6, 7, 8, 9 and 10-12 depend from Claim 5 and Claim 19 depends from Claim 14. Therefore, for at least the reasons provided above of Claim 1, Claims 3, 5-7, 8, 9, 10-12 and 19 are patentably distinguished over *Tanaka* and are in condition for allowance.

In light of the above, Applicants respectfully submit that Claims 1-20 and new Claims 21, 22 and 23 in the present application are in condition for allowance and respectfully solicit an early allowance of these claims.

A fee of \$750.00 is submitted herein to cover the cost of the new claims. If any other fees are due in connection with this application as a whole, the Patent Office is authorized to deduct such fees from Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the attorney docket number (112857-221) on the account statement.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY


Christopher S. Hermanson
Reg. No. 48,244
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 807-4225

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Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 6 and 7. These sheets replace the original sheets including Figures 6 and 7.

Attachment: Replacement Sheets (2)